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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,439	02/19/2004	Andre Georges Cook	DN1999227USAD01	5644

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THE GOODYEAR TIRE & RUBBER COMPANY
INTELLECTUAL PROPERTY DEPARTMENT 823
1144 EAST MARKET STREET
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EXAMINER

AFTERGUT, JEFF H

ART UNIT	PAPER NUMBER
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1733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/782,439	Applicant(s) COOK ET AL.	
	Examiner Jeff H. Aftergut	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of U.K. 2,009,362 (newly cited, of record) and Burnham '401.

The admitted prior art is cited for the same reasons as previously noted. It should be noted that the claims as presented are in Jepson form. As such, the applicant has admitted that it was not only known to form a hose length on a rotating mandrel, feeding a length of material onto the mandrel as the mandrel rotates to build up the hose length on the mandrel and feeding a length of a second material in the form of a reinforcing rod onto the mandrel as the mandrel rotates to form a helical reinforcement on the hose length followed by curing of the hose length but also the applicant has admitted that in such processing it was known to form the build up of the hose to include at least one layer of reinforcing material along the length of the hose prior to application of the second length of material in the form of a reinforcing rod. In other words, the applicant has admitted that it was known to form a hose assembly which included an interior reinforcement which was initially formed upon the hose followed by the application of an exterior reinforcement which included a reinforcing rod thereon. The admitted prior art failed to teach that one would have modified a portion of the hose length prior to feeding the reinforcing rod thereon.

The reference to U.K. '362 evidenced that it was known in the formation of a hose length to provide an end region of the hose which was provided with an interior

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reinforcement but which lacked an exterior reinforcement therein. More specifically, the reference taught that one provided a single layer of reinforcement 2 along the length of the hose followed by the application of an additional reinforcement 3 helically about the hose. The reference taught that subsequent to formation and vulcanization (curing) of the hose, one skilled in the art would have removed the second reinforcing material at the ends of the hose by helically cutting the hose and pulling the reinforcement 3 out at the ends in order to provide a hose with a cuff. The reference additionally taught that subsequent to the removal of the reinforcement 3 at the ends of the hose one cut the end of the reinforcing material which was removed and bent it back and secured the end of the reinforcement to the hose. One applied an adhesive tape 6 over the cut portion of the remaining reinforcement 3. The reference to U.K. '362 clearly suggested that those skilled in the art at the time the invention was made would have understood to incorporate a reinforcement in a hose internally therein as well as a second reinforcement about the exterior of the hose wherein at the end of the hose where it was desired to have a cuff one skilled in the art would have removed the end portion of the reinforcement. The reference did not remove the reinforcement by treating the hose length to create non-adhesive regions therein but rather removed the reinforcement subsequent to the curing or vulcanization of the hose to form the cuff therein. This clearly required the additional step of cutting the vulcanized material of the hose helically to facilitate removal of the reinforcement 2 in the cuff region. As an alternative to removal in this fashion and to avoid having to take the time consuming step of cutting the hose in this fashion to facilitate removal of the end portion of the reinforcement, it

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would have been obvious to one of ordinary skill in the art to treat the material of the hose (vulcanize it) so that the reinforcement was not secured at the end region of the hose in light of the teachings of Burnham '401.

Burnham '401 is discussed at length in paragraph 2 of the Office action dated 9-7-06 and applicant is referred to the same for a complete discussion of the reference. More specifically, Burnham suggested that it was known at the time the invention was made to make a tubular product on a mandrel wherein one applied material upon the mandrel followed by application of helical reinforcement to the mandrel wherein one performed a step of modifying a portion of the tube in length M via application of a curing material for the curable resin (for example) which made up the core tube which was having the reinforcement 63 applied thereto. It should be noted that the curing agent was applied prior to the introduction of the reinforcement onto the tube whereby the tubular structure was hardened so that the reinforcement (in this case a wire) was not embedded within the tube but rather remained upon the surface of the same. Additionally, the tube was advanced past the winding device without rotation of the winding device whereby the wire was applied along the axis of the tube generally axially thereon. The reference to Burnham also suggested that such an application (in the axial direction without rotation of the winding device) would have resulted in a reduction in the tension of the wire as it was applied axially of the tube. The reference to Burnham suggested that those skilled in the art would have severed the exposed reinforcing wire after tube formation in order to provide the tube with a tip portion which was unreinforced, see column 12, lines 1-14. The applicant is additionally referred to column

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11, lines 40-67 for a description of the application of the reinforcement to the tube wherein one applied the curing material to the curable resin of the tube prior to the application of the reinforcement thereon. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the techniques of Burnham to provide a region of reinforcement which was not integral with the finished assembly and which was easily removed from the tube as it was not embedded within the tubular body during manufacture by pretreating the surface of the tube to prevent such embedding when making a hose and/or tubular body where it was desirable to provide a end region of a hose without a second exterior reinforcement while retaining an interior reinforcement as taught by U.K. 2,009,362 made in accordance with the wrapping techniques of the admitted prior art. Note that the use of the treatment of the hose length about the exterior in Burnham provided an easy way to expose the reinforcement about the exterior wherein cutting of the hose at the end in a helical fashion was unnecessary to expose the reinforcement for removal of the same (which was required by U.K. '362).

With regard to claim 5, note that the reference to Burnham suggested that those skilled in the art would have modified the tube length by application of a curing agent for the curable material of the tube thereby preventing the embedding of the reinforcement within the tube. Regarding claim 6 note that one skilled in the art would have understood that in order to provide a tip portion which was unreinforced that the assembly was severed at the locations where the reinforcement was removed. Regarding claim 7, the applicant is advised that there must be relative rotational

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movement between the wire dispenser and the mandrel in order to angularly apply the same, in the reference to Burnham this was provided by rotation of the reinforcement guide as the mandrel was fed axially past. In the admitted prior art it was provided by rotation of the mandrel and axially passing the wire guide along the axis. When one desired to provide the unreinforced region in Burnham, one simply stopped the rotation of the wire guide wherein the wire was applied along the axis of the mandrel. To provide the wire along the axis of the mandrel in the admitted prior art as the wire guide was moved along the axis, one skilled in the art would have understood that the rotation of the mandrel would have ceased in order to provide longitudinal reinforcement thereon. There is no other means to provide longitudinal reinforcement in the winding system of the admitted prior art which was clearly desirable in accordance with the provision of the non-reinforced regions in Burnham. Regarding claim 8, note that the reference suggested that those skilled in the art would have understood that as the wire was applied longitudinally of the tube its tension would have been reduced.

Response to Arguments

3. Applicant's arguments with respect to claims 4-8 have been considered but are moot in view of the new ground(s) of rejection.

The applicant essentially argues that the reference to Burnham '401 is not relevant to the question of obviousness because the reference provided for a hose length which had reinforced regions and unreinforced regions where there was a total lack of reinforcement therein. The applicant is advised that in the manufacture of a cuffed hose assembly it was well known to provide a hose length which included

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reinforcement along the entire length of the hose and additionally provided a second reinforcement about the exterior of the hose where the second reinforcement was removed at the ends of the hose in order to provide a cuff for the hose length as taught by U.K. '362. To utilize the techniques of Burnham '401 to remove the exterior reinforcement where the removal of the reinforcement was facilitate by treating the ends of the hose length to render them non-adhesive to the reinforcement would have been understood to have been an alternative to helically cutting the hose after vulcanization and removal of the reinforcement as taught by U.K. '362 which had the added benefit of providing an integral hose which is not cut through the hose material helically and which does not require such precision cutting for removal of the reinforcement (i.e. it provided a simpler way to remove the end reinforcement which would have been understood to have been more efficient and cost effective). Whether Burnham '401 has reinforcement at the tip or not is immaterial as to whether one skilled in the art of hose manufacture would have understood that the techniques taught therein would have been useful for removal of the reinforcement in the end portion of a tube. As U.K. '362 provided an internal reinforcement in a hose which was retained in the finished assembly (reinforcement 2), the applicant's arguments have not been found to be persuasive.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
January 21, 2007